# **MD iMap Technical Committee Meeting Minutes**

<u>Place</u>: Maryland Department of the Environment (MDE): Terra Conference Room (Baltimore, Maryland)

**Date**: 8/16/11

<u>Time</u>: 1:00 PM - 3:00 PM

Attendees: Rowland Agbede (MDA), Michael Bentivegna (CGIS), Ashley Buzzeo (CGIS), Jim Cannistra (MDP),

Kaushik Dutta (MdTA), Bill Fearrington (DJS), Julia Fischer (DBED), Barney Krucoff, Lisa Lowe

(DNR), Anthony Puzzo (Esri) and Brad Wolters (DHCD)

**Guests:** Tim Baker and Wei Yang (State Archives)

## **AGENDA:**

• 1:00 – 1:10 Introductions

• 1:10 – 1:30 MD iMap Services Archiving – Tim Baker

• 1:30 – 1:40 Application Subcommittee Updates

• 1:40 – 1:50 Data & Resources Subcommittee Updates

1:50 – 2:00 Outreach Subcommittee Updates

o 2:00 – 2:30 Education Tab on Portal – Scott Jeffrey

2:30 – 2:40 Security Subcommittee Updates

• 2:40 – 3:00 Q&A with Barney Krucoff

## **NEW ACTION ITEMS:**

| Description:  | Date Assigned:        | Follow Up By:  |
|---|-----------------------|----------------|
| <ul> <li>Archival Connectivity Options</li> <li>Request clarification from DoIT to setup internal firewall structure to share via SWIGGY</li> </ul> | Submitted:<br>8/16/11 | Barney Krucoff |
| OSPREY Services – WFS enabled  • Check whether these are WFS-enabled and provide response   | Submitted:<br>8/16/11 | Ashley Buzzeo  |

## **ON-GOING ACTION ITEMS:**

| Description:   | Date Assigned: | Follow Up By: |
|--|----------------|---------------|
| ELA  | Updated:       |               |
| <ul> <li>Provide list of contributing agencies to MD iMap Tech Comm</li> </ul> | 8/2/11         | Kanny Millar  |
|  | Submitted:     | Kenny Miller  |
| Provide list of contributing agencies  | 7/19/11        |               |
| Statewide GIS Strategic Plan   | Submitted:     | Kenny Miller  |
| Statewide GIS Strategic Flair  | 1/4/11         | Keiniy Winei  |
| ArcGIS 10 Migration  | Updated:       |               |
| Provide outline and pros/cons list to provide to Executive Committee           | 6/21/11;       | Technical     |
| (CGIS)   | 11/16/10       | Committee     |
| Provide information about how long MD iMap will be down and plan for           |                |               |

|   | migration (CGIS)                                      | Submitted: |  |
|---|---|------------|--|
| • | CGIS is testing implications of migration             | 9/21/10    |  |
| • | Further discussion is necessary concerning this topic |            |  |

| Application Subcommittee:   |                       |                               |
|---|-----------------------|-------------------------------|
| Description:  | Date Assigned:        | Follow Up By:                 |
| <ul> <li>Application Specific Services</li> <li>Facilitate a discussion with CGIS concerning potential options for map service storage and organization</li> </ul>  | Submitted: 7/5/11     | Kenny Miller                  |
| Support of StateStat Application (Capital Budget & ARRA applications)  • Graph of hours/budget of efforts to support these applications (CGIS)  |                       |                               |
| <ul> <li>Provide an understanding of when support crosses from normal,<br/>budgeted attention to custodian of application needs to be charged<br/>extra because of rush charge, etc. (CGIS)</li> </ul>                  | Submitted:<br>6/21/11 | CGIS                          |
| Application Submission Procedures   |                       |                               |
| Update detailed procedures for application creation and update  | Submitted:            | Technical                     |
| <ul> <li>Resend Application Submission Procedures draft to Technical<br/>Committee (Co-chairs)</li> </ul>   | 6/21/11               | Committee                     |
| License Agreement in regards to Code Sharing  | Updated:              |                               |
| Brian Sivak wants applications and their code to be in the public domain and freely available for sharing   | 7/5/11;<br>6/21/11    | Kenny Miller                  |
| <ul> <li>Awaiting response from Kenny Miller concerning how to proceed</li> <li>Check with Brian Sivak for comment concerning whether to code share through MD iMap Portal or another open source repository</li> </ul> | Submitted:<br>6/7/11  | nemy which                    |
| Code Acquisition for MD iMap Portal   | Undated               |                               |
| <ul> <li>Provide updated worksheet to Kenny Miller for review, after updates<br/>have been applied (Kaushik Dutta)</li> </ul>   | Updated: 7/5/11;      |                               |
| Development Code Worksheet Generated (Kaushik Dutta)  | 6/7/11;               |                               |
| Date of Launch – add this additional column and information to worksheet (Kaushik Dutta)  | 1/4/11;<br>12/21/10;  | Kaushik Dutta                 |
| <ul> <li>Work on filling in missing information (Kaushik Dutta &amp; Kenny Miller)</li> <li>Meeting to be scheduled to discuss next steps</li> </ul>  | 12/7/10;<br>11/16/10  | Kenny Miller                  |
| <ul> <li>Excel spreadsheet inventory being produced by CGIS and MES</li> <li>Actively being pursued</li> <li>Obtain Flex code from CGIS and MES for MD iMap-based applications</li> </ul>                               | Submitted: 10/19/10   |                               |
| Interface Branding  | Updated:              |                               |
| Holding off until after July 5 <sup>th</sup> launch of Fast Track application   | 6/21/11;              |                               |
| Send completed document out to Technical Committee for review & comment (Kenny Miller)  | 6/7/11;<br>4/5/11     | Kenny Miller<br>Kaushik Dutta |
| Get documentation from Kaushik Dutta to start/restart discussion  | Submitted:            |                               |
| Schedule App. Committee to discuss App Branding.  | 3/15/11               |                               |
| Developer Contact List  | Updated:              | A 1                           |
| <ul> <li>List to be developed</li> <li>Compile developer point of contact list</li> </ul>   | 4/5/11;<br>12/21/10   | Application<br>Subcommittee   |

|  |                 | Kaushik Dutta |
|--|-----------------|---------------|
|  | Submitted:      |               |
|  | 11/16/10        |               |
|  | Updated:        |               |
| Agency Agreement Concerning Posting of Code on MD iMap Portal  | 4/5/11          | Technical     |
| Development of Agency Agreement concerning posting of code to portal   |                 | Committee     |
| See what documentation exists at other agencies  | Submitted:      |               |
|  | 10/19/10        |               |
| Agency Agreement Concerning Posting of Code on MD iMap Portal  | Submitted:      | CGIS          |
| Check for documentation available from existing open API agreements  | 10/19/10        | COIS          |
| anagis com My Mans   | Updated:        |               |
| arcgis.com My Maps   | 3/1/11          | Technical     |
| <ul> <li>Need to consider how MD iMap services appear when pulled into<br/>arcgis.com and suggest potential changes</li> </ul>               |                 | Committee     |
| Work with the product and come to next meeting with feedback   | Submitted:      |               |
| Work with the product and come to next meeting with recubicing   | 2/15/11         |               |
| Rapid Application Prototype  |                 |               |
| <ul> <li>Consider if arcgis.com will meet the majority of needs proposed for this effort</li> </ul>  |                 |               |
| Proposal updates being implemented   | <b>Updated:</b> |               |
| CGIS to provide updated proposal based on comments   | 2/15/11;        |               |
| CGIS provided proposal for review and comment  | 12/21/10;       |               |
| CGIS to provide updated cost/hours estimate based on results of Q&A  | 12/7/10;        | Kenny Miller  |
| and discussion conducted during 10/19/10 Tech. Comm. meeting   | 11/16/10;       | Application   |
| CGIS to provide cost/hours estimate by next Tech. Comm. meeting  | 10/19/10;       | Subcommittee  |
| Obtain pricing, based on specifications of application, from CGIS and  | 10/5/10;        | Technical     |
| MES  | 9/7/10          | Committee     |
| Email has been sent out to CGIS and MES from Kenny Miller – awaiting   |                 |               |
| response   | Submitted:      |               |
| <ul> <li>Consolidate list of requirements for a rapid application deployment<br/>option (Phase 1)</li> </ul>                                 | 7/12/10         |               |
| • Email consolidated list of requirements to Tech. Comm.   |                 |               |
| List has been generated and is available for review  |                 |               |
| Comment on Developer's portion of MD iMap Portal   | Submitted:      | Technical     |
| <ul> <li>Review and provide email comments to Lisa Lowe concerning<br/>developer's page that has been added to the MD iMap Portal</li> </ul> | 8/4/10          | Committee     |

| Data & Resources Subcommittee:  |                                |                        |
|---|--------------------------------|------------------------|
| Description:  | Date Assigned:                 | Follow Up By:          |
| <ul> <li>GIS/Archives Appraisal Questions</li> <li>Distribute survey to as many municipal, county and state agencies, as possible, for potential participation</li> </ul> | Submitted: 7/5/11              | Technical<br>Committee |
| <ul> <li>Archive Data</li> <li>Working along with Tim Baker to set up presentation or discussion for 8/16/11 Tech Comm meeting</li> </ul>                                 | Updated:<br>7/19/11;<br>7/5/11 | Co-chairs              |

| Feedback/Requests concerning MD iMap   |        |
|--|--------|
| Add Hillshade Service: Inquire at DNR if they have a hillshade available     Submitted:  Jim Cann  | ictra  |
| Add Map/Parcel ID Look-Up: Follow up with requestor (Jason Zhao – MDE) to clarify request      MDE) to clarify request   | isti a |
| 2007 – 2008 Orthophoto Metadata Submitted:   | 17700  |
| • Check availability of metadata for this data  Ashley Bu  3/1/11  | ızzeu  |
| "Political Boundaries" Map Service Submitted: Ashley Bu  | 17760  |
| • Review the "Political Boundaries" map service, determine the source  6/7/11  Brad Wo   |        |
| and last update date   | ners   |
| Eastern Shore Imagery Assimilation   |        |
| • Eastern Shore imagery is now on production server Updated:   |        |
| • Rename "NAIP" service to "Composite" service 6/21/11;  |        |
| • Tweets and email message of new imagery release    4/5/11   Ashley Bu  | ızzeo  |
| Provide draft write-up of details and FAQs (Jim Cannistra)  Jim Cannistra  |        |
| • Add new "Composite" imagery service now and phase out "NAIP"  Submitted:   | usu a  |
| service (CGIS)  3/15/11  |        |
| Check server space available versus need   |        |
| Cost estimate for additional storage space for new imagery   |        |
| Point of Interest/Place Name Geocoder  Submitted: Ashley Bu  | ızzeo  |
| Ashley Buzzeo will work with Brad Wolters to determine if this    1/18/11     Rrad Wolters   |        |
| composite geocoder will meet these additional search criteria needs  | 1015   |
| WFS Services Updated: Ashley Bu  | ızzeo  |
| • Top 10 list to be assembled during next Data & Resources  4/5/11  Data of the best of th |        |
| Subcommittee meeting Resour  |        |
| • List of enable services, email to group  Submitted: Subcomm  | ittee  |
| 3/15/11  |        |
| WFS Services Submitted: Kenny M  | iller  |
| • Agency sharing policy needed; Exec. Comm. to be consulted 1/18/11 Exec. Co   | mm.    |
| WFS Service Testing Updated:   |        |
| • Top 10 list to be assembled and MOU issues assessed 3/1/11 Data  | &      |
| • Executive Committee has requested demo at 4/27/11 meeting Resour   |        |
| • Follow up concerning process testing and provide feedback to Tech  Submitted:  | ittee  |
| Comm 1/4/11  |        |
| Web Manager Data Samina Businstian   |        |
| Web Mercator Data Service Projection 4/5/11  |        |
| Per MES, EMMA replacement will use Web Mercator projection  CGIS  CGIS   |        |
| • Assess costs in labor and storage for creation of MD iMap data services (except imagery) in Web Mercator projection  Submitted:  |        |
| (except imagery) in web mercator projection 1/4/11   |        |
| Metadata Services Updated: Data  | &      |
| • Forward electronic list to group 1/18/11; Resour   |        |
| • Updated list to be provided by Friday, 1/7/2011 1/4/11; Subcomm  | iittee |

| Updated list to be provided at 1/4/2011 meeting   | 12/21/10;  | Co-chairs                 |
|---|------------|---------------------------|
| Remaining "offenders" actively being pursued  | 10/5/10;   |                           |
| Resend email to "offenders" to complete metadata  | 8/3/10;    |                           |
| Email resent and follow-up by Kenny Miller to occur   | 7/12/10;   |                           |
| MDP has provided metadata for all their services on MD iMap   | 6/22/10;   |                           |
| Follow-up concerning how to obtain the missing metadata for services currently being hosted on MD iMap  | 5/18/10    |                           |
| Email sent to Kenny   | Submitted: |                           |
| Agency leads from Tech. Comm. to make progress  | 4/20/10    |                           |
| <ul> <li>Direct contact of data owners</li> </ul>   |            |                           |
| A listing of services for which metadata is needed was provided. It was discussed that some metadata may not be available from the data producers. This is especially true for parcel data. Metadata at the service level will be written by MDP for parcel data to go along with the MD iMap refresh process |            |                           |
|   | Updated:   | <b>D</b>                  |
| Cached Map Services   | 12/7/10    | Data &<br>Resources       |
| Draft email to be sent out concerning changes to on-demand/cached   |            | Subcommittee              |
| services  | Submitted: | Chair                     |
|   | 11/16/10   |                           |
| Basemap Template Upgrade/Gazetteer Service Update   |            |                           |
| Review and provide feedback to Ashley Buzzeo (Technical Committee)  | Updated:   |                           |
| • Provide hours concerning clean-up, update and reaching of this layer (Ashley Buzzeo)  | 6/7/11;    | CGIS                      |
| Submit additional comments for updates to Ashley Buzzeo   | 4/5/11;    | Data &                    |
| Obtain most up-to-date county boundary from SHA   | 1/4/11;    | Resources<br>Subcommittee |
| Add state and county boundaries and Interstate and US Highways for all states adjacent to Maryland and NJ   | 12/21/10   | Technical                 |
| Comments for changes should be sent to Ashley Buzzeo  | Submitted: | Committee                 |
| Meeting to be scheduled to discuss next steps   | 10/19/10   |                           |
| Upgrade basemap using Esri template   |            |                           |
| Google Urchin   |            |                           |
| CCBC has updated through March 2011 and will post on portal   | Updated:   |                           |
| CCBC updating stats and will be posted to portal shortly  | 4/5/11;    |                           |
| Check with Lisa Lowe to make sure she is able to handle additional  | 3/1/11;    |                           |
| questions that might come through the contact links from the Portal   | 12/7/10;   | GIO                       |
| page (Tech Comm Co-Chairs)  | 11/16/10;  | CGIS                      |
| Contact Ashley Buzzeo, Scott Jeffrey or Brad Davis with additional  | 10/5/10;   |                           |
| comments and clarifications needed to be included in the reports, so  | 9/21/10    | Technical<br>Committee    |
| they are understandable to those viewing reports from the Portal (Tech  | U/ WI/ IU  |                           |
| Comm)   | Submitted: |                           |
| Manual has been generated for extracting web analytics from Google<br>Urchin  | 9/7/10     |                           |
| Manual submitted for review by Technical Committee  |            |                           |

| Actively working on clarifying categories to be included on report   |  |                        |
|--|--|------------------------|
| Provide categories to be included in statistical output report   |  |                        |
| Categories have been provided to CGIS by GIO   |  |                        |
| Meeting to address scheduled for 9/22/10 at CGIS   |  | ļ                      |
| <ul> <li>Community Mapper</li> <li>Revisit in 6 months         <ul> <li>How many counties were approached?</li> <li>How big is the hole of Maryland?</li> </ul> </li> <li>State of MD will not be participating in program based on inability to sign agreement based on Esri's current terms</li> </ul> | Updated: 10/19/10; 10/5/10; 9/21/10  Submitted: 9/7/10 | Technical<br>Committee |

| Education & Outreach Subcommittee:   |   |                                    |
|--|---|------------------------------------|
| Description:   | Date Assigned:                                | Follow Up By:                      |
| <ul> <li>Ramona</li> <li>Send out available stats .pdf for review</li> <li>Check with IT person for Ramona to get MD stats</li> </ul>  | Updated: 4/5/11; 3/15/11  Submitted: 3/1/11   | Ashley Buzzeo                      |
| • Link to Ramona needs to be added to MD iMap Portal webpage   | Submitted:                                    | Lisa Lowe                          |
| <ul> <li>Embed search or have a one click link to Ramona</li> </ul>  | 3/1/11  | Kevin Coyne                        |
| Link to Merlin needs to be added to MD iMap Portal webpage   | Submitted: 12/21/10                           | Lisa Lowe                          |
| Discuss adding a feedback button to MD iMap Portal webpage   | Submitted: 12/21/10                           | Outreach<br>Committee<br>Lisa Lowe |
| <ul> <li>Email Blast</li> <li>Generate an email including a brief explanation of the Tech. Comm's vision and the Portal web address</li> <li>Blast email to extended GIS community</li> <li>Include updated Vision document</li> </ul> | Updated: 9/7/10; 5/18/10  Submitted: 4/20/10  | Outreach<br>Subcommittee           |
| <ul> <li>Recruit participants</li> <li>Obtain feedback concerning how to improve upon current outreach strategies</li> <li>Email potential new members directly</li> </ul>   | Updated: 5/18/10; 4/20/10  Submitted: 3/16/10 | Outreach<br>Subcommittee           |
| Proactive Marketing of MD iMap   | Submitted:<br>9/21/10                         | Outreach<br>Subcommittee           |

## **Security Subcommittee:**

| Description:   | Date Assigned:    | Follow Up By:            |
|--|-------------------|--------------------------|
| Charter  | Submitted:        | Security                 |
| Generate a charter   | 12/7/10           | Subcommittee             |
| Security Model   |                   |                          |
| Provide a copy of MD iMap Security Presentation to Brian Sivak (Jim Cannistra)   |                   |                          |
| Price quotes from proposal submission to be updated  | <b>Updated:</b>   |                          |
| Additional documentation needed to address:  | 6/7/11;           |                          |
| o Cost of Delay  | 3/1/11;           |                          |
| <ul> <li>Justification of security (limitations, efficiencies)</li> </ul>  | 10/27/10;         | Coourity                 |
| <ul> <li>Needs Assessment to determine groups and definitions</li> </ul>   | 10/19/10;         | Security<br>Subcommittee |
| • Schedule meeting for Friday, October 22, 2010 to formalize document and format presentation for October 27, 2010 Exec. Comm. meeting | 9/21/10           |                          |
| Generate detailed document and presentation for October 27, 2010     Exec. Comm. meeting   | Submitted: 8/3/10 |                          |
| Document for presentation to Exec. Comm. at Oct. meeting   |                   |                          |
| Demo accompanying document to Exec. Comm. at Oct. meeting  |                   |                          |
| • In progress, to be submitted by next Tech. Comm. meeting $(10/5/10)$   |                   |                          |

## **COMPLETED ACTION ITEMS:**

| Description:   | Date Assigned:       | Follow Up By: |
|--|----------------------|---------------|
| Send out initiatives list to group for review and comment                                  | Submitted:<br>8/2/11 | Julia Fischer |
| Design part of the 8/16 Tech Comm meeting for Barney Krucoff to ask questions of the group | Submitted:<br>8/2/11 | Co-chairs     |

## **Introductions**

Round-the-room

## MD iMap Services Archiving – Tim Baker:

- System in Annapolis
- Archival backup of GIS datasets (long-term considerations 100+ years, 500+ years)
- Capture as a slice in time
- IT backup
- Pilot project level of interest
- 2 main storage arrays
  - o Replicates one to another
  - Replicates to UMBC (long-term agreement)
    - § Mirrored environment of state's electronic environment
    - **§** File system rather than tapes
      - SWIGGY (Statewide Inter-Governmental Network) connection can transfer data
        - Directory hierarchy that exists utilized/duplicated and data replicated to system with minimal difficulty
- Pilot suggested
  - o Current CGIS/MD iMap server data

- Replicate to UMBC
- Security
- o Recall data
- Question of connectivity to network
  - 500mb/sec connection from Archives to UMBC
    - **§** 70 TB within 30 40 days
- Internet II: can be another method of transport
  - o Additional considerations would need to be made
- CGIS: UMAPS & SWIGGY connection
  - Physical connectives exist
  - o Firewall issues shouldn't exist
- Look for gaps in archiving efforts to date
- Current inventory of GIS data at Archives
  - o MDPV disks (lifespan 5 10 years)
  - Other optical disks
  - o DNR disks
- Capture data while live electronically and keep it in this environment
- Format issues are designed to be included with this effort
- Media issues being focused on
  - Santafes QRS
    - § Migratable technology currently implemented
- Cost savings because archive could be back up system?
  - Potential with some costs involved
  - o Restore data as part of service
- Library of Congress partner to Archive geospatial data
  - Not dictating how
  - Providing forum and grant funding to figure this out
- National Digital Stewardship Preservation Alliance
  - o Best practice forums provided
- Accessible of archived data
  - o WFS, CMFS, FTP multiple different options to retrieve data
  - Spectrum of possibilities
    - § Copy data and leave
    - § Controlled access to restore
      - Space requirements more demanding if used as production environment
      - Not unlimited
- Replicate to Annapolis first and to UMBC OR push copy from UMBC to Annapolis
- Restrict to state network of proprietary data
  - o "built in" security/isolation of data
  - Secured web server (passwords not needed, authentication built-in at point of access to network)
- Potential to provide some map service security as sought by MD iMap?
- Action Item: Request clarification from DoIT to setup internal firewall structure to share via SWIGGY Barney Krucoff
- On-site backup to continue
- Disaster recovery (full-on available) beyond getting tapes from off-site and reinstating
  - More quickly retrieval and element of disaster recovery

- § UMBC business continuity/disaster recovery plan
- Move a set of servers to UMBC as fail over option
  - Potential idea
- Replicate database: yes
- Variety of data, on variety of schedules updated
  - Inventory and determine how best to do it
- Pilot suggested (SWIGGY connection exists no cost to pilot)
  - o Case study to do GIS from geodatabase
  - Share processes for others to complete
  - Setup automated way to push data to archives
  - Size of data:
    - § 2 TB 6" imagery (every 2 years 2 to 4 TB of imagery)
    - **§** Vector data relatively small (240 GB)
  - Native images (50TB) only Western Shore where is this stored long term?
    - **§** Currently on 8 hard drives
    - § Archive makes copy? Onto what?
      - Suggest they go on tapes
      - All tapes connected to system at present
- Next Steps:
  - O What to do for pilot?
  - o Phased structure?
  - o To what extent?
- Retired datasets get pushed electronically to Archives at very least

## **Application Subcommittee Updates:**

- arcgisonline (basemap templates) tabled at this time
- interface branding has been discussed and formatted
  - o to be released to group
  - o plug new widgets into template structure
- Developer Page (D.C. for Application Developers)
  - Javascript for each widget to demo functionality
- MD iMap services individually registered on arcgis.com under MD iMap group
- Open Source Code Page
  - Posting code in one place
- Suggest going back to Brian Sivak to get backing and further clarification
- arcgis.com group zip file upload
- use flex viewer with tags and build applications in arcgis.com

## **<u>Data Subcommittee Updates:</u>**

- 2010 LULC service, cached, in production
- Parcel service updated to resolve ID issues
- Updating holes in Eastern Shore imagery pre-release at present
- Pre-release new services "OSPREY" public viewer services (temporary location)

- Check them out, might move back to MEMA
- Would like to keep some of this data on MD iMap
  - § NAD 83 projection
- o Health folder: 25 layers available
- o WFS enabled?
  - § Action Item: Check whether these are WFS-enabled and provide response Ashley Buzzeo
- Testing working in Arc10 with interoperability extension (MDP)
- USGS & MD iMap questions about differences identified
  - Map service and QC application provided to counties to QC new imagery
  - Want to compare with old imagery, but differences noticed
    - § Radiometry
    - § Darkness
      - How exactly are they different and why?
  - o Same dataset should look the same (.tiff vs. cached have differences)
- 2009 Eastern Shore Imagery
  - .tiff images with problems have been identified by MdTA for Talbot County and sent back to Axis Geospatial for resolution
    - § Need to follow up with Salisbury University
- Symbology for services currently determined by agency submitting data
  - Considerations to standardize symbology?
  - O What is the resolution?
- .kml parcel layers service still has some issues
  - o What's still going on?

## **Education & Outreach Subcommittee Updates:**

- Engage MSGIC concerning this topic
- MSGIC "do the work", MD iMap host
- Conflict with Governor's Portal tabs
- Master teachers require additional credits
  - o Incorporate historic documents, etc.
- MD iMap support programs in schools
- Connect/leverage with MSGIC opportunity
  - o Joint projects opportunities

#### ELA:

- Centralized license server or redundant license servers hosted?
- Make case for single use licenses
  - o Want to minimize
- On Portal, where might information be housed?
- Open SharePoint site?

- D.C. Government Model:
  - o ArcGIS Server at centralized, singular level
  - Each agency didn't have own ArcGIS Server
  - o Data shared on three levels for D.C. based on accessibility needs
  - o Can MD network support this?
  - o Offering ArcGIS Server was significant sell to ELA contributions

## **Other Business:**

- Arc to Earth extension
  - o Create .kmls
  - Enhanced capabilities
- Data interoperability tool is not part of the main Arc Desktop software and is not included in the ELA

-END MEETING-